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***Onychomesa gokani*, a New Emesine Assassin Bug (Insecta: Heteroptera: Reduviidae) from Japan**

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The reduviid genus *Onychomesa* Wygodzinsky, 1966 is reported from Japan for the first time, with the description of the new species *O. gokani*. The species inhabits grassy vegetation of Iriomote-jima Island, the Ryukyus, Japan.

Key Words: *Onychomesa*, Emesinae, Reduviidae, Heteroptera, Japan.

Introduction

The reduviid genus *Onychomesa* Wygodzinsky, 1966, belonging to the emesine tribe Metapterini, has hitherto been represented by only two species, *O. sauteri* Wygodzinsky, 1966 from Taiwan and *O. susainathani* Wygodzinsky, 1966 from India (Wygodzinsky 1966; Maldonado Capriles 1990; Putshkov and Putshkov 1996). Through recent field surveys, several individuals of the genus were obtained from grassy vegetation (Poaceae and Cyperaceae) on Iriomote-jima Island in the southwestern Ryukyu Islands, Japan. These individuals represent a new species, which is described here. Illustrations and a key to the species of the genus are provided to assist in recognition.

Genus ***Onychomesa*** Wygodzinsky, 1966

Onychomesa Wygodzinsky, 1966: 530.

Type species: *Onychomesa susainathani* Wygodzinsky, 1966, by original designation.

Onychomesa gokani sp. nov.

Description. *Holotype* (micropterous male). *Measurements* (in mm). Body length 12.8. Head length 1.1, width across eyes 0.6; interocular space 0.4; antenna length 12.0; rostrum length 1.2. Length of pronotum 1.7, length of mesonotum 1.3, length of metanotum 0.8. Lengths of foreleg femur, tibia, and tarsus 2.8, 1.1, and 0.7; of midleg 5.8, 6.9, and 0.5; and of hindleg 7.0, 9.5, and 0.5, respectively. Abdomen length 7.8.

Coloration. Body generally brown, faintly mottled with pale patches of various sizes. Head ventrally pale, with longitudinal pale stripes dorsolaterally. Rostral

segments I and II pale. Antennae dark brown except for paler brown basal 9/10 of segment I. Foreleg pale at base and middle of tibia and on basal half of tarsus. Mid- and hindlegs dark on apical parts of femora and on subbasal parts of tibiae. Abdomen ventrally darkened basad and apicad, with three longitudinal reddish lines dorsally.

Structure. Body covered with short decumbent hairs and scale-like setae. Head elongate, somewhat bowed outward on sides of postocular region (Fig. 1). Eye small, its height about half that of head (Fig. 2). Antenna densely covered with short hairs in segments III and IV and apical 1/4 of segment II; segment I thickened in apical part; proportional lengths of segments I to IV 17: 14: 1: 5. Rostrum almost straight; proportional lengths of segments I to III 7: 5: 8 (Fig. 2).

Pronotum not covering mesonotum, indistinctly divided behind into anterior and posterior lobes, posterior one collar-like (Figs 1, 2). Metanotum about half as long as pronotum.

Forelegs (Fig. 3) sparsely covered with short hairs; coxa 1.3 times as long as pronotum; femur with posteroventral and anteroventral series of spiniferous processes; former series composed of one large, three medium-sized, and about 25 small processes (Fig. 3), and latter of three medium-sized and about 25 small ones; tibia about 1/3 as long as femur, with row of about 25 denticles ventrally; tarsus 3/5 as long as tibia, with two rows of deflexed spiniform setae ventrally, outer row shorter than inner one; claws unequal in size, inner one with incised lamella ventrally at middle (Fig. 5). Mid- and hindlegs slender, sparsely covered with short decumbent hairs; each claw evenly curved, with incised lamella and inconspicuous blunt projection ventrally (Fig. 4). Wings much reduced; hemelytra minute, pad-like; hindwings absent.

Abdomen slender, parallel-sided, with ventral carina along meson from sternite II to VII; tergite VII tongue-shaped in posterior half; posterior margin of sternite VIII almost straight (Fig. 8). Genital capsule (Figs 12, 13) compressed laterally, transversely rugose behind, faintly carinate along meson, with blunt posterodorsal projection. Paramere (Fig. 10) rod-shaped with about 17 short, conical spines on inner surface in apical third and hooked setae on remaining surfaces in about apical half.

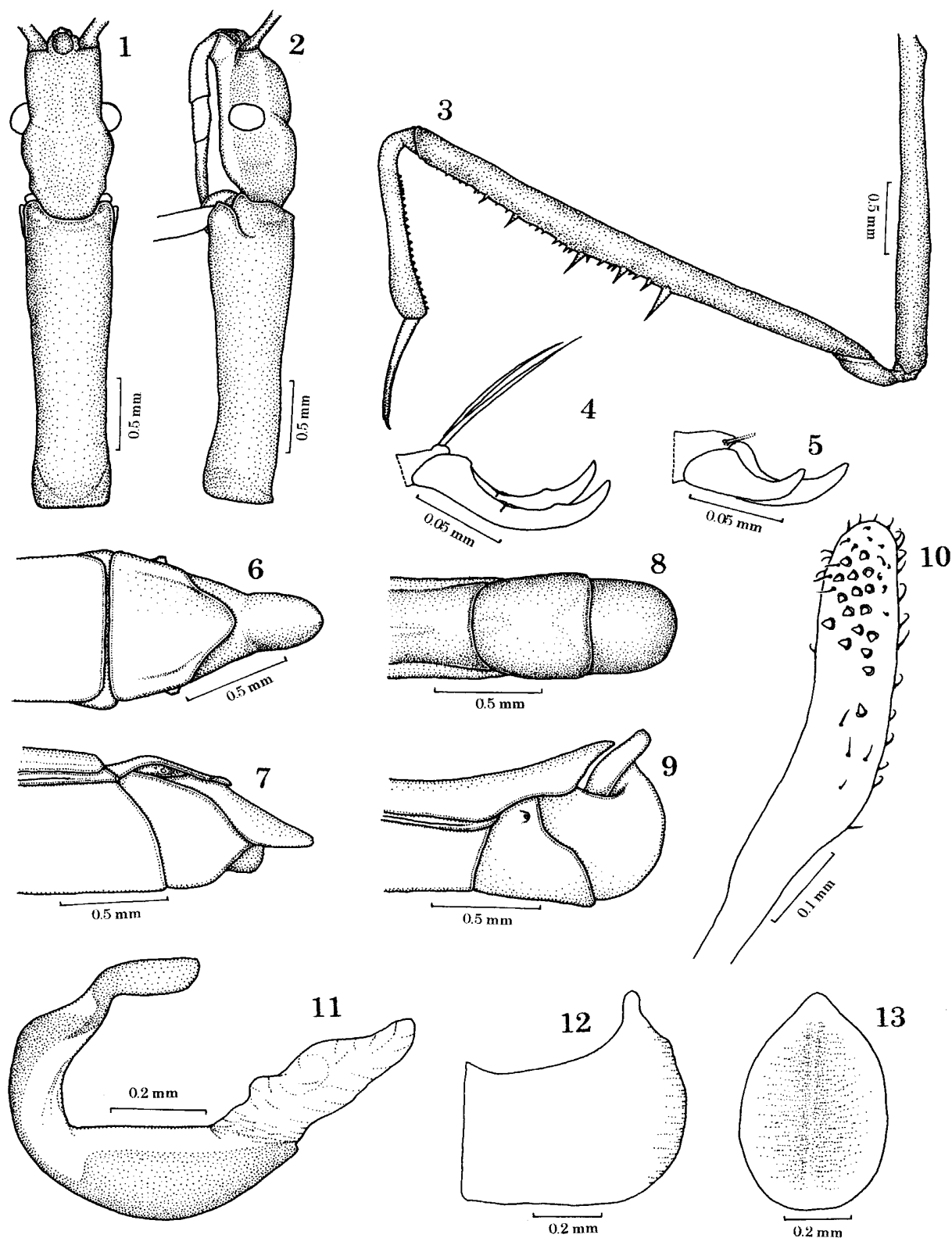
Phallus of paratype as shown in Fig. 11; phallosoma subapically widened, with ventral sclerite broadened in apical half; endosoma shorter than phallosoma, without sclerotization.

Female. Almost same in general habitus as male. Abdominal tergite VIII protrudent behind with blunt apex; tergite IX tongue-shaped in apical half. First valvifer pointed distally (Figs 6, 7).

Macropterous morph. Unknown.

Morphological variation. The body length of this species ranges from 12.3 to 13.8 mm in males and from 14.2 to 15.5 mm in females. The general coloration varies from pale brown to dark brown. The darker individuals have a ventrally brownish rostrum and several pale, narrow annulations on the mid- and hindlegs.

Type series. Holotype: ♂, Urauchi, Iriomote-jima Is., Ryukyu Islands, Japan, 20.VI.1998, T. Ishikawa. Paratypes: same locality as for the holotype —1♂ and 1♀, 21.IX.1998, T. Ishikawa; 1♂, 21.IX.1998, T. Shimada; 3♂♂, 30.V.1999, T. Ishikawa; 4♂♂, 28.V.2000, H. Mizushima; 4♀♀, 28.V.2000, T. Ishikawa; 8♂♂ and 3♀♀, 30.V.2000, T. Ishikawa.



Figs 1-13. *Onychomesa gokani* sp. nov. 1-2, head and pronotum, dorsal and lateral views; 3, left foreleg; 4, claws of hindleg; 5, claws of foreleg; 6-7, apex of female abdomen, dorsal and lateral views; 8-9, apex of male abdomen, ventral and lateral views; 10, left paramere, inner view; 11, phallus; 12-13, genital capsule, lateral and posterior views. 1-3, holotype; 4-13, paratypes.

The holotype and 21 paratypes are preserved in the Laboratory of Insect Resources, Faculty of Agriculture, Tokyo University of Agriculture, Atsugi, Japan. One pair of the paratypes will be housed in the National Science Museum, Tokyo, and the United States National Museum of Natural History, Washington, D.C., respectively.

Distribution. Japan: Ryukyu Islands (Iriomote-jima Is.).

Remarks. This new species is similar to the two known species, *Onychomesa sauteri* and *O. susainathani*, but it can be distinguished from the former by the unequal foreclaws (Fig. 5), the almost straight posterior margin of male sternite VIII (Fig. 8), and the simple upper margin of the genital capsule (Fig. 12). The new species is also differentiated from *O. susainathani* in having considerably less conspicuous ventral projections on the mid- and hindclaws (Fig. 4), eye height equal to half the head height (Fig. 2), and a more flattened projection on the genital capsule (Fig. 12).

Etymology. Named after Prof. Nobuo Gokan, to whom this new species is respectfully dedicated in commemoration of his retirement from our university.

Key to species of *Onychomesa*

1. Claws of foreleg subequal in size *O. sauteri* Wygodzinsky
- Claws of foreleg unequal in size..... 2
2. Claws of mid- and hindlegs each with pointed, triangular projection on subapical portion of undersurface; eye more than half as high as head height.
- *O. susainathani* Wygodzinsky
- Claws of mid- and hindlegs each with rather inconspicuous projection on subapical portion of undersurface; eye as high as half head height.
- *O. gokani* sp. nov.

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